

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP/07183

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G02B6/00 A61B18/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G02B A61B A61N B23K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 79319 A (PHOTONICS RES ONTARIO) 28 December 2000 (2000-12-28) page 7, line 13 - line 27 page 9, line 27 - page 11, line 8 page 13, line 13 - line 18	1-3, 10, 12, 14-16, 19-22, 24, 26
X	DE 197 39 456 A (HUETTINGER MEDTECH GMBH) 4 March 1999 (1999-03-04) cited in the application column 2, line 33 - line 36 column 3, line 40 - line 43 column 6, line 19 - line 36 figures 1, 4, 6	1-3, 12-14, 16, 19-22, 24-26

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

Z document member of the same patent family

Date of the actual completion of the international search

18 December 2003

Date of mailing of the international search report

14.01.2004

Name and mailing address of the ISA

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 466 697 A (DANIEL MAURICE) 21 August 1984 (1984-08-21) column 5, line 19 - line 26 column 6, line 16 - line 31; figure 4 ---	1, 20
X	WO 99 23041 A (MIRAVANT SYST INC ; RYCHNOVSKY STEVEN J (US); SHINN MICHAEL G (US)) 14 May 1999 (1999-05-14) page 2, line 17 - page 3, line 3 figures 1, 2, 6 ---	20
A	---	1
A	US 2002/085824 A1 (DUGAN MARK A ET AL) 4 July 2002 (2002-07-04) abstract ---	1, 20
X	US 2001/021293 A1 (KOUTA HIKARU ET AL) 13 September 2001 (2001-09-13) figure 1; example 1. paragraph '0053! ---	27, 28, 30, 31, 34
X	EP 1 116 965 A (JAPAN SCIENCE & TECH CORP ; CENTRAL GLASS CO LTD (JP)) 18 July 2001 (2001-07-18) paragraphs '0027! - '0029! paragraphs '0033! - '0035!; figure 2 paragraph '0043! ---	27, 28, 30, 31, 33, 34
X	WO 01 09899 A (CORNING INC) 8 February 2001 (2001-02-08) example 6 page 7, line 32 - page 8, line 2 ---	27, 28, 30-32, 34

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See supplemental sheet

On the basis of the prior review under PCT Rule 40.2(e), no additional fees are to be refunded.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest



The additional search fees were accompanied by the applicant's protest.



No protest accompanied the payment of additional search fees.

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The International Searching Authority has determined that this international application contains multiple (groups of) inventions, namely

1. Claims 1-26

optical waveguide with two cross-sectional regions, each with an index of refraction, and a transitional region between these cross-sectional regions, an optical property of the optical waveguide being modified in the transitional region.

2. Claims 27-34

apparatus for microstructuring an optical waveguide with a pulsed laser and a focussing device so that within the optical waveguide the incoming radiation has a power density of 10 GW/cm^2 or more.

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